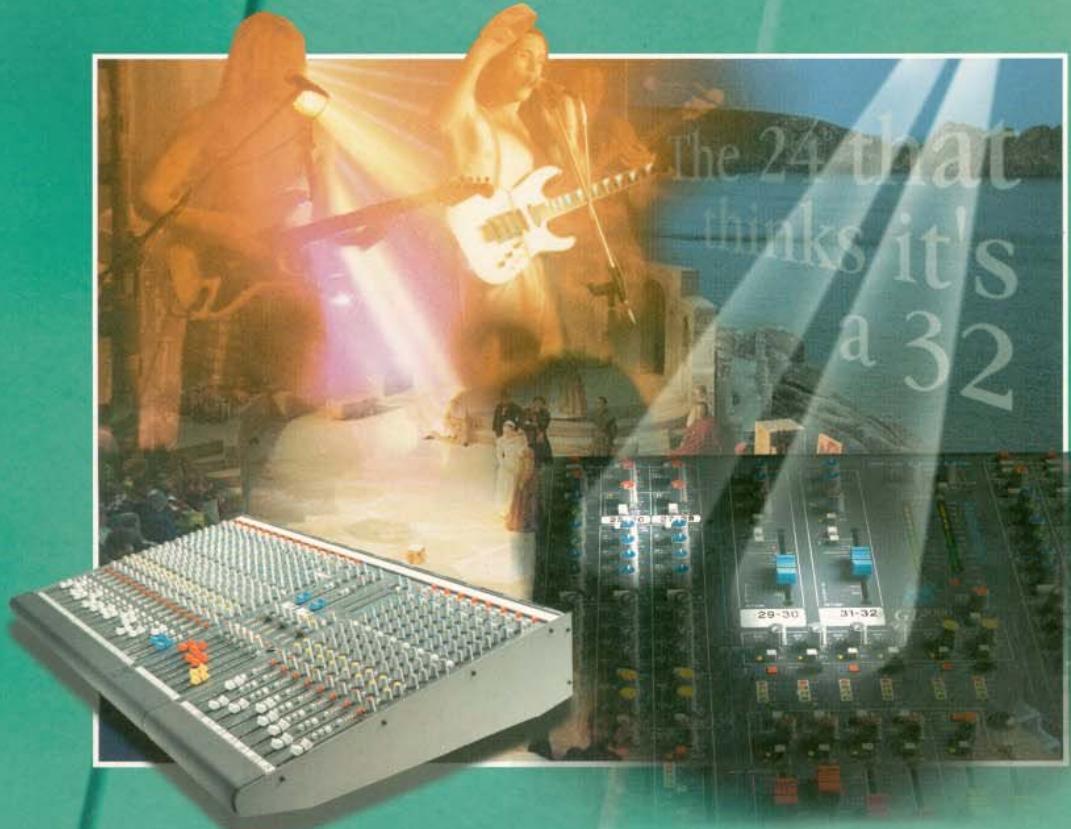


GL2000

WHEN YOU'RE
MIXING WITH
PROFESSIONALS



ALLEN
&
HEATH

- 4 GROUP
- DUAL FUNCTION
- LIVE CONSOLE

GL2000

*Like the everlasting durability of the theatre built in the cliff, the GL2000 was designed for a **long hard life**. The result is a perfectly rigid mechanical design with superb **sonic** characteristics.*

The package would not be complete without the hallmarks of A&H design philosophy; a proven four band semi

*parametric EQ, **eight additional inputs** on every frame size, expandability, all in an uncompromised Dual Function console.*

*So if you expect your console to work hard and stay functionally **flexible** then you are very likely to enjoy the benefits we offer in the GL2000 range.*





24 GOING ON 32

The bonus of having more inputs than expected is always an advantage. Each frame size in the GL2000 range has **EIGHT** extra inputs.

A LEADING EQ

The two swept mid bands have a wide frequency range with exactly the right Q. Its a **PROVEN**, exhaustively field tested EQ taken from our existing GL2 range.

DUAL FUNCTION

The Dual Function specification of all A&H consoles is unique. For true flexibility, using only a few front panel switches, the whole console becomes a **DEDICATED MONITOR BOARD**. Couple that with its ability to **SELECTIVELY SWITCH** only as many of these outputs as needed and the GL2000 is truly placed in a class of its own.

EXPANDABILITY

There are situations where a particular performance will demand even more inputs. Another unique design marque of A&H is the **SYS-LINK™** buss interconnect system. This gives the engineer or the PA Hire company exactly the degree of **EXPANDABLE FLEXIBILITY** needed at a fraction of the cost of other alternatives.

HARD AS ROCK

The challenge was to make the rigid construction of the GL2000 light enough for one person to carry to any location - **WE SUCCEEDED**.

GL2000

More than enough

SOUND

We are proud of the GL2000, its the quietest and most transparent sounding console we've heard. And that's from a company that has been making professional mixers for over 25 years.

Mono and Stereo inputs

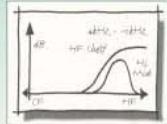
Every frame size has two fully featured Stereo inputs. These, along with the two Stereo FX Returns amount to eight additional inputs. Each stereo input includes the same wide ranging Mic pre-amp as the Mono inputs, a four band EQ and 6 Auxiliary sends.

Every input channel is designed on a single card. This improves service, reduces down time and is proven to add to the general durability and life span of the console.

EQ

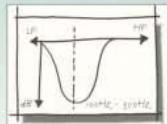
BAND	CUT/BOOST	MONO	STEREO
HF	$\pm 15dB$	12kHz shelf	12kHz shelf
MF1	$\pm 15dB$	500Hz - 15kHz	2.5kHz
MF2	$\pm 15dB$	95Hz - 1kHz	250Hz
LF	$\pm 15dB$	80Hz shelf	80Hz shelf

PRESENCE



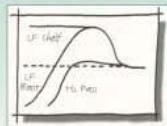
The HF control works in conjunction with the Hi Mid sweep EQ. The wide bandwidth and the specific Q setting enable presence to be added to vocal sources or sibilance removed. The silk like high end characteristics of the HF can soften up even the most iron clad cymbals.

PROXIMITY



Proximity effect is inherent in all microphones and is a naturally occurring phenomenon when close miking. To the audience the booming muddy sound is usually unpleasant. The Lo Mid Q setting and frequency range can eliminate this effect without destroying the original sound.

HI PASS FILTER



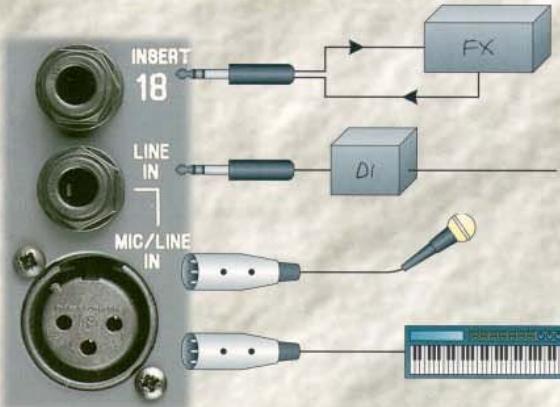
The GL2000 is designed for professionals. We consider a Hi Pass filter to be an essential component of the input stage and the EQ. Without one you can't remove stage rumble and vocal popping without losing control of the whole bottom end warmth. The LF control works in conjunction with the filter to give a bass end boost without increasing the sub bass component.

Most features like the **input meters** on every channel (by the faders where you really need them), the full length 100mm faders, **individual** channel by channel phantom power switches, one control/one function ergonomics and intelligent colour coding are apparent from just looking at the channel strips.

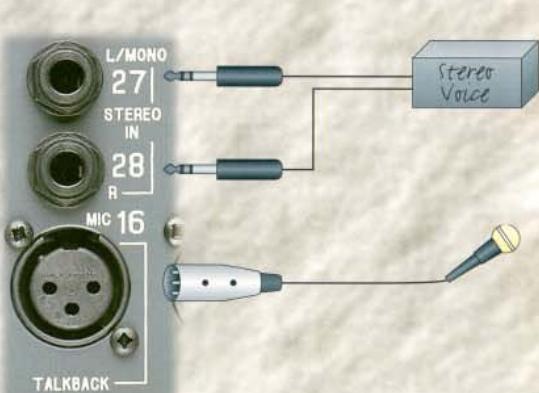
However, on the back page you will find the signal path diagram. Have a look at the auxiliary routing links - flexibility with options you can select to suit your application.



Mono



Stereo



LINE TO LR



When using the Stereo Inputs as Mic inputs you don't lose the stereo input function. The Mic/Line switch selects the signal to be routed through the main channel path. If 'Mic' is selected then the additional 'LINE to LR' switch routes the stereo input source direct to the LR mix buss. With only the Left line input connected the signal is automatically monoed.

The Auxiliary send busses are always mono (the sum of left and right signals), however, all the link options to select a pre or post **EQ** source, pre or post **MUTE** source, pre or post **FADER** source and the **SWITCH FUNCTION BYPASS** are all available.

MIC TO TALKBACK



The right hand stereo input channel on all GL2000 frames has a **DUAL ROLE** as the talkback Mic input.

A comprehensive, but novel talkback system has been included. A **BRIGHT GREEN LED** warns you that the Mic has been enabled as the source for the talkback function. This comes on automatically when the main channel source is selected as LINE.

The Master Section

As with the Mono and Stereo Input channels all the circuits of the Master Section are built on vertically mounted circuit boards for proven reliability and ease of service. An uncluttered layout and common-sense ergonomics mean that you can mix with confidence from day one.

As with our comprehensive input section, you'll find that the number and quality of our outputs is more than enough, whatever the job. The variety of operating modes at your disposal, along with fully-balanced Group and LR outputs represent an extremely compact and versatile design.

features

DUAL FUNCTION FLEXIBILITY

The unique design function that allows **one** engineer to manage the **main PA** and a selectable number of **stage monitor** mixes. Sub panel switches ensure selections have to be made deliberately and cannot be tampered with. Talkback follows the stage monitor selection in pairs.

SYS-LINK™

SYS-LINK™ allows the GL2000 to be expanded. It is a proprietary buss interconnect system **unique** to the whole live and installation range of A&H consoles. SYS-LINK™ is covered in greater detail on pages 10 and 11 so if your needs are to be **flexible** then the GL2000 is your perfect partner.

RECORDING

The 2 Track Send and Return facilities enable simple connection to **DAT recorders** and **CDs**. The Return can be monitored in the **engineers headphones** and directed to the main **LR mix buss**. Best used for intermission replay or simply playing the roadies favourite album during set up.

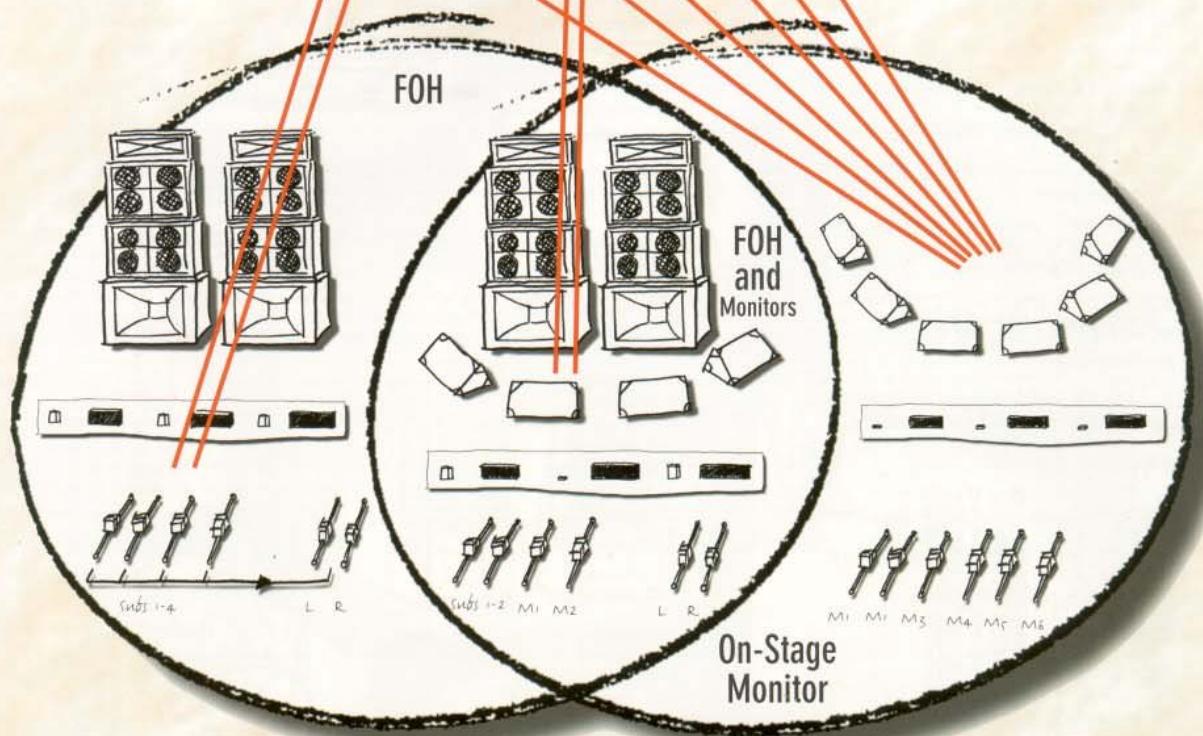
STEREO RETURNS

These inputs are ideal for FX. With **EQ**, **routing** and **fader** control these returns can be sent direct to the **LR mix** or subgrouped to each pair of group outputs. The subgroups have individual routing to the **LR mix**, **inset points**, **AFL**, and **individual balance controls**.

Note the quality gold XLR connectors, the **insert** points on all the **main outputs**, 6 auxiliary sends with **balanced output options**, the **convenient internal power supply assembly** that can be quickly configured for the correct mains voltage.



Dual Function



FRONT-OF-HOUSE

As a straight forward FOH console the GL2000 has **6 AUXILIARY** send busses individually available from every channel, **4 SUBGROUPS** to the main LR mix with individual pan control, **ROUTING, INSERTS** **GROUP OUTPUT** meters, **AFL** on all groups, LR mix busses and a **MONO OUTPUT** feed for centre clusters or sub bass drivers.

DUAL FUNCTION

*Stage Monitor feeds can be selected in pairs, 1&2, 3&4 and L&R (Aux 5&6). The switchable function of the groups and auxiliaries really helps when each night puts a **different requirement** on the console. Set up is **instantaneous** so decisions can be left until the last minute.*

ON-STAGE MONITORS

The whole console can become a dedicated On-Stage Monitor board if needed. All six auxiliary busses are routed to the group faders and the LR faders. A professional monitor output signal path is available which includes; a **100mm** fader for each mix, an **INSERT** point, **AFL** monitor, **OUTPUT** meters, **TALKBACK** and a **BALANCED XLR** output connector. A dedicated **WEDGE MONITOR** feed from the mono output connector is also available.

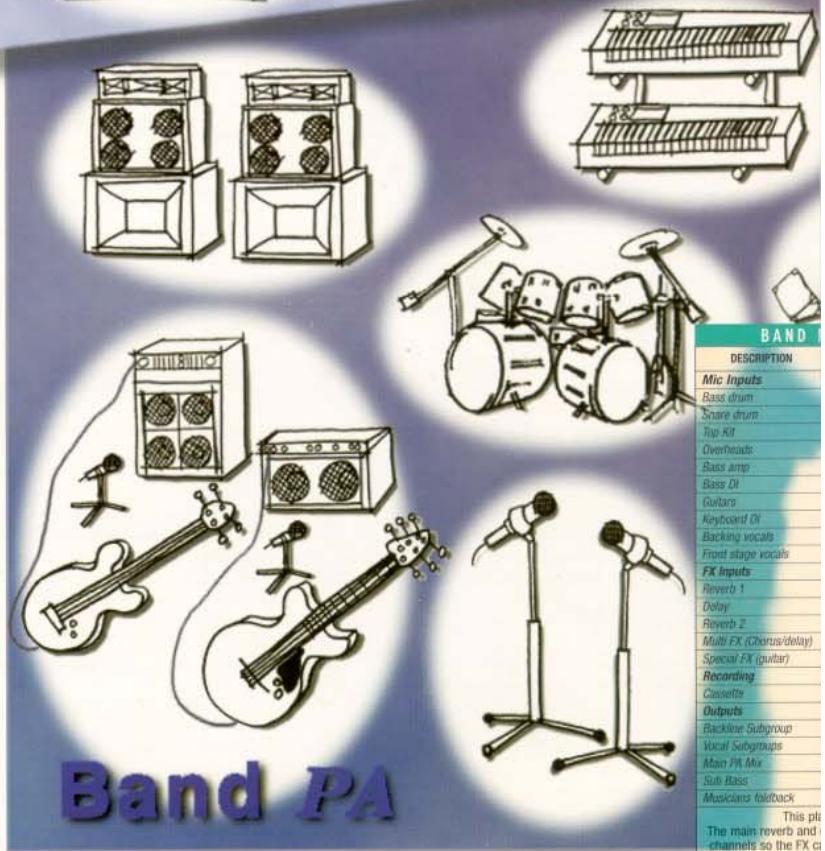
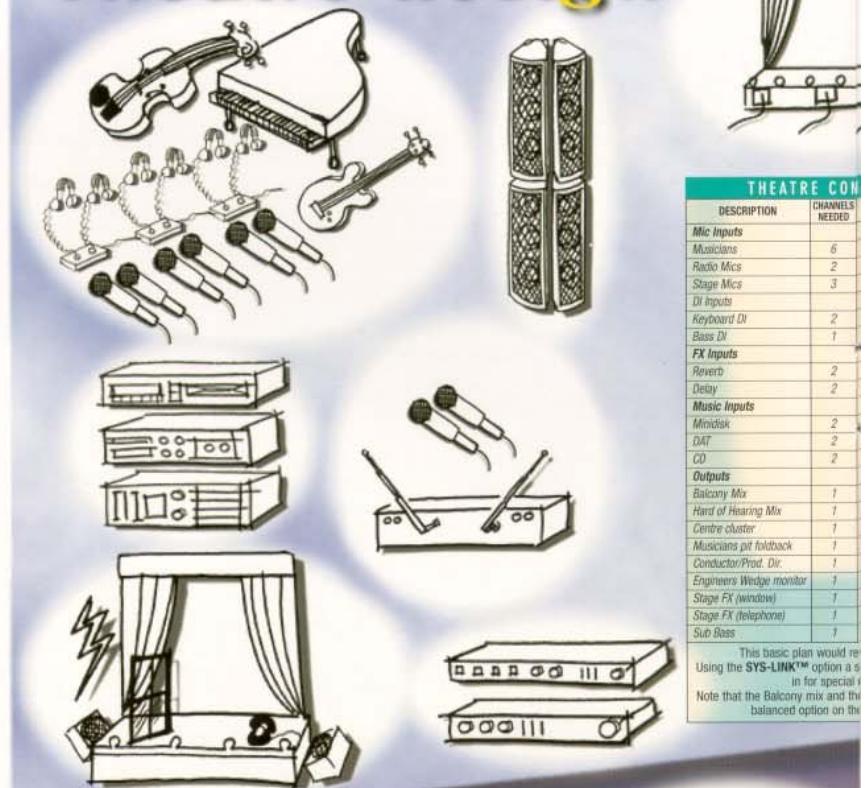
Applications

The purpose of these pages is to demonstrate the flexibility of the GL2000. The tables show how the console can be arranged to meet the many different requirements.

The GL2000 has a supreme ability to fit like a chameleon into whatever the days work demands. What is more, we hope you will be pleasantly surprised when you find out you don't have to pay inflated prices for this extra versatility.

- It all comes down to design experience,
- Making the best use of technology,
- With excellent design quality control,
- By engineers who have a hands-on background of sound engineering.

Theatre design

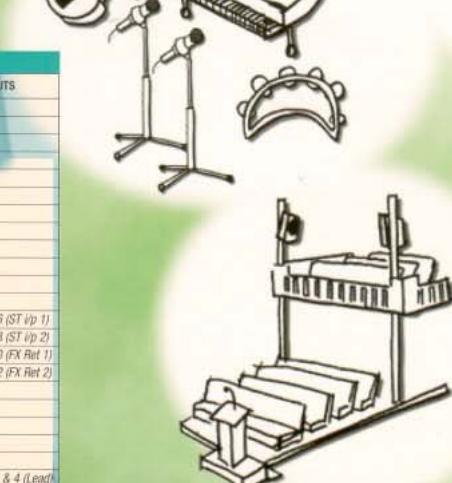
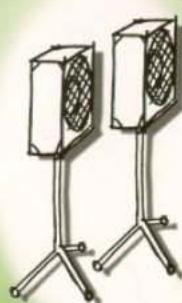


Club

CONSOLE PLAN

INPUTS/OUTPUTS

Ch. 1-6
Ch. 7-8
Ch. 9-11
Ch. 25/26 (Stereo i/p)
Ch. 12
Aux 5 send, Ch. 21/22 (FX Ret 1)
Aux 6 send, Ch. 23/24 (FX Ret 2)
Ch. 27/28 (stereo up)
Ch. 13-14
2 Trk Ret
Aux 3 (balanced)
Aux 4 (balanced)
Left mix
Aux 1 (through Group 1)
Aux 2 (through Group 2)
Mono Out
Group 3
Group 4
Right Mix
quire a GL2000-416, second GL2000 could be hired occasions.
Hard of Hearing mix use the auxiliary outputs.



House of Worship

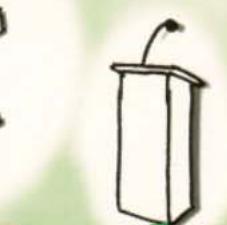
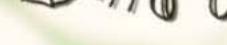
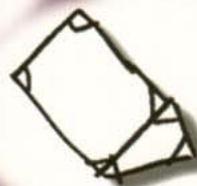
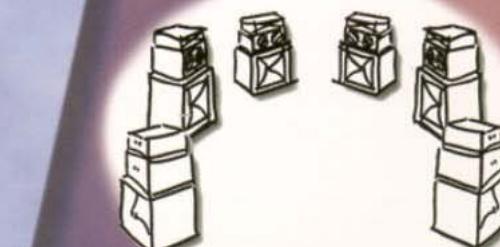
requires a GL2000-424.

Delay FX are allocated to the stereo input
to be mixed to the stage. The secondary
he Stereo FX Returns so it can be used
only on the drum subgroup.

CONSOLE PLAN

CHANNELS NEEDED

CHANNELS NEEDED	INPUTS/OUTPUTS
1	Ch. 1
1	Ch. 2
2	Ch. 3-4
2	Ch. 5-6
1	Ch. 7
1	Ch. 8
3	Ch. 9-11
2	Ch. 12-13
2	Ch. 20-21
3	Ch. 17-19
2	Aux 1 send, Ch. 25/26 (ST i/p)
2	Aux 2 send, Ch. 27/28 (ST i/p 2)
2	Aux 3 send, Ch. 29/30 (FX Ret 1)
2	Aux 4 send, Ch. 31/32 (FX Ret 2)
3	Ch. 22-24
2	2 Trk Send & Return
2	Subgroups 1 & 2
2	Subgroup 3 (backing) & 4 (Lead)
2	LR Mix
1	Mono Mix
2	Aux 5 & 6 (balanced)



CLUB CONSOLE PLAN

DESCRIPTION	CHANNELS NEEDED	INPUTS/OUTPUTS
Mic Inputs		
Stage Mics	2	Ch. 1-2
Radio Mics	4	Ch. 3-6
Club Trio Musicians		
Drums	2	Ch. 7-8
Keyboards	1	Ch. 9
Guitars	1	Ch. 10
FX Inputs		
Reverb	2	Aux 1 send, Ch. 17/18 (FX Ret 1)
Delay	2	Aux 2 send, Ch. 19/20 (FX Ret 2)
Playback Inputs		
Deck 1	2	Ch. 13/14 (stereo i/p 1)
Deck 2	2	Ch. 15/16 (stereo i/p 2)
Outputs		
1st Speaker pair	2	Groups 1&2
2nd Speaker pair	2	Groups 3&4
3rd Speaker pair	2	LR mix
Stage foldback	2	Aux 5&6

This basic plan would require a GL2000-412.
Using the SYS-LINK™ option a second GL2000 could be hired
in for larger bands. The power of the GL2000 is in the extended
EQ. Having more control of the input sound will help achieve a
better mix and therefore a better sound from the speakers.

HOUSE OF WORSHIP CONSOLE PLAN

DESCRIPTION	CHANNELS NEEDED	INPUTS/OUTPUTS
Mic Inputs		
Minister	1	Ch. 14
Lay preachers	2	Ch. 12-13
Choir	2	Ch. 10-11
Piano	2	Ch. 8-9
Guitars	2	Ch. 6-7
Other Musicians	5	Ch. 1-5
FX Inputs		
Reverb	2	Aux 3 send, Ch. 21/22 (FX Ret 1)
Delay	2	Aux 4 send, Ch. 23/24 (FX Ret 2)
Playback Inputs		
CD	2	Ch. 19/20 (RH stereo i/p)
Cassette 1	2	Ch. 17/18 (LH stereo i/p)
Cassette 2	2	2 Trk Ret
Outputs		
Main Mono Mix	1	Mono Out
Rear House/Balcony mix	1	Group 4
Hard of Hearing Mix	1	Group 3
Musicians foldback	1	Aux 1 (through Group 1)
Choir foldback	1	Aux 2 (through Group 2)
Video/Cassette clean feed	2	Aux 5 & 6
and/or		
Cassette 2	2	2 Trk Send

This plan requires a GL2000-416.
Very good recordings of guest players and choirs can be made
using the features available. The Video or Cassette feed can be
balanced independently.

PA Hire SYS-LINK™

SYS-LINK™ is our proprietary buss interconnect option that allows you to join two or more consoles together electronically.

The requirement is usually to provide more inputs for the performance. The customers most likely to benefit are the PA hire companies. By the very nature of the business we understand you need day to day flexibility, low inventories and equipment out on the road earning money.

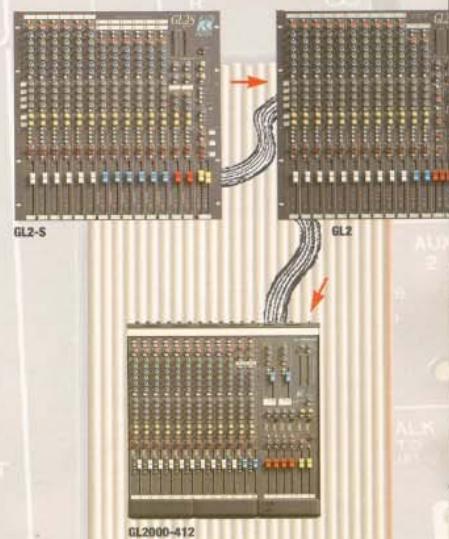
The examples on this page illustrate just how flexible the option can be.

The GL2000 can be connected up to five other GL2000s or as many other A&H consoles.

50 INPUTS TO LR MIX



58 INPUTS TO LR MIX



CONNECTING

A console fitted with the **SYS-LINK™** option can be connected to any other **SYS-LINK™** console within seconds. A single multi way cable joining any two consoles in the system is all that is required. As **SYS-LINK™** is an electronic standard there are no mechanical or physical constraints on what can be connected to what. The GL2000 is at home working alongside an 8 buss GL4-840ST or the 3 zone GR1 rack mixer.

72 INPUTS TO LR MIX

CHANS.	DESCRIPTION
60	Mic Inputs
6	Stereo Inputs
4	Stereo Returns
8	Groups/Subgroups
8	Auxiliary Sends

*Note the GL3000 routes either 8 specific Mic Inputs or 4 Consolidated Stereo Inputs to the LR mix.

161 INPUTS TO LR MIX

CHANS.	DESCRIPTION
114	Mic Inputs
17	Stereo Inputs
6	Stereo Returns
12	Mono Returns
8	Groups/Subgroups
10	Auxiliary Sends
3	Zones

*Note this is a hypothetical configuration designed to illustrate the flexibility of the SYS-LINK™ architecture. The configuration is theoretically possible although has never been tested.

27 INPUTS TO LR MIX

CHANS.	DESCRIPTION
18	Mic Inputs
5	Stereo Inputs
2	Stereo Returns
10	Zone Outputs

*Note the GR1 routes either 3 Mic Vips or 3 associated Stereo Vips to the zones.
*Although 10 zones are stated, 7 of these zones are exclusive to the GL2000 inputs.

MASTER AND SLAVE

The link between the consoles can include any or all the Auxiliary busses, Group busses, LR buss, PFL, AFL and PFL/AFL logic. Not all facilities must be joined, cables can be configured to mix and match as the need arises. In a daisy chain system the last console is the master. The master console is simply determined by connecting the slave unit's **SYS-LINK™** output port to the **SYS-LINK™** input port of the master. Note that the outputs of all the slave consoles are still active even though the signal is also being passed on to the master console.

OTHER HELPFUL OPTIONS

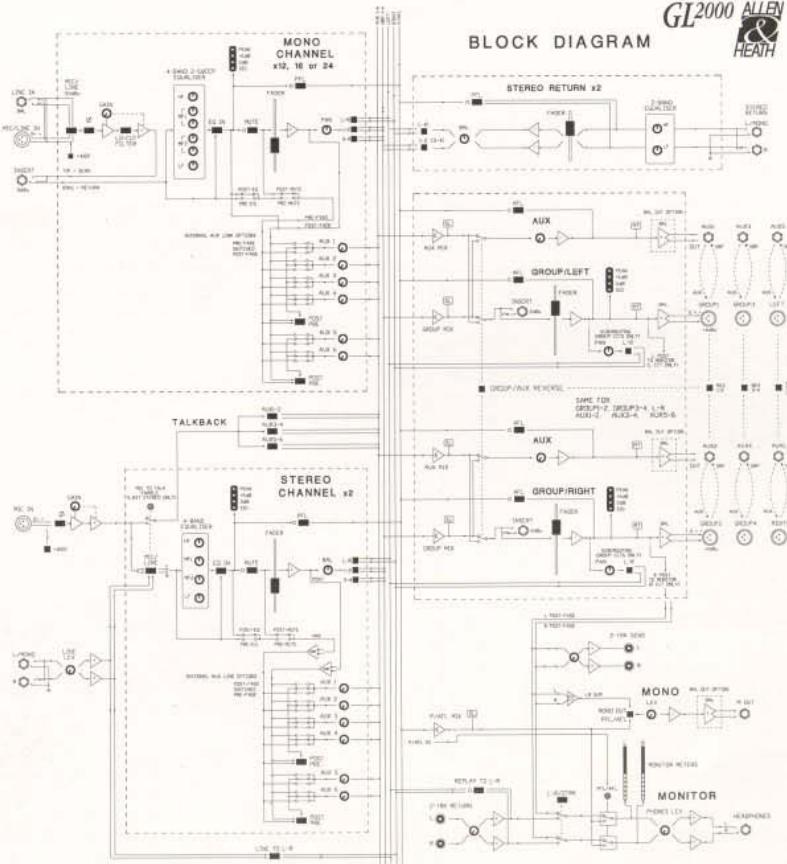
FLIGHTCASE We offer an optional industrial manufactured flightcase designed specifically for the GL2000 range.

SYS-LINK™ The **SYS-LINK™** option is a small circuit card and wiring harness that can be easily installed by any competent technician.

BALANCED OUTPUT OPTION A collection of balanced output driver chips is all that is required to balance the Auxiliary Master outputs and the Mono output.

SPECIFICATIONS

GL²⁰⁰⁰ ALLEN
&
HEATH



CONNECTOR DETAILS

CONNECTOR DETAILS					
Line Input	1/4" Jack	Balanced	>10k ohms	Tip Hot, Ring Cold	-40dBu, +10dBu
(Line Input)	Fem XLR	Balanced		Pin 2 Hot, Pin 3 Cold	-40dBu, +10dBu
Mc Input	Fem XLR	Balanced	>2k ohms	Pin 2 Hot, Pin 3 Cold	-60dBu, -10dBu
Stereo Ch. Line	1/4" Jack	Unbalanced	>8k ohms	Tip Hot	-20dBu Min
Channel Insert	1/4" Jack	Unbalanced		Tip Snd, Ring Rtn	0dBu, +21dBu Max
Stereo Return	1/4" Jack	Unbalanced		Tip Hot	-10dBV Min.
2 Track Return	RCA Phono	Unbalanced	>10k ohms		-10dBV Min.
2 Track Send	RCA Phono	Unbalanced			+21dBu Max
Aux Outputs					
	1/4" Jack	Ground Compensated		Tip Hot	-20dBu, +21dBu Max
	1/4" Jack	(Balanced Option)		Tip Hot, Ring Cold	+40dBu, +27dBu Max
Group Outputs	Male XLR	Balanced		Pin 2 Hot, Pin 3 Cold	+40dBu, +27dBu Max
Mono Output	1/4" Jack	Ground Compensated		Tip Hot	-20dBu, +21dBu Max
	1/4" Jack	(Balanced Option)		Tip Hot, Ring Cold	+40dBu, +27dBu Max
L-R Outputs					
	Male XLR	Balanced		Pin 2 Hot, Pin 3 Cold	+40dBu, +27dBu Max
Monitor Output	1/4" Jack	Unbalanced		Tip Left, Ring Right	+21dBu Max
Monitor Phones	1/4" Jack		32 ohms to 600 ohms recommended	Tip Left, Ring Right	+21dBu Max
Output Inserts	1/4" Jack	Unbalanced		Tip Snd, Ring Rtn	-2dBu, +21dBu Max

PERFORMANCE DETAILS

Frequency Response	Noise Performance		SNR
20Hz to 50kHz, +0/+6dB	Measured RMS 22kHz Bandwidth		Ratio
Line in to L-R Out, 0dB gain	+0/+1dB	Mc EIN (100% source)	< -12dB
Mic in to L-R Out, 40dB gain	+0/-1dB	Line Pre-amp, 0dB gain	< -90dB
		L-R Residual Noise	< -94dB
		L-R Faders "0", nothing routed	< -90dB
Distortion		L-R Faders "0", nothing routed	94dB
THD + Noise @ +14dBu 1kHz output		L-R Mix Noise, 16 Ch. routed	< -84dB
Mic in to L-R Out, 40dB gain	0.010%	Group, Faders "0", nothing routed	< -91dB
Line in to L-R Out, unity gain	0.008%	Group mix noise, 16 Ch. routed	< -84dB
CMRR Mic in, 40dB gain	>70dB		
Cross talk Referred to driven Channel 1kHz			
Adjacent Channel	< -94dB		
Fader Closed	< -90dB		
Pan Pot Isolation	< -80dB		

MECHANICAL DETAILS

UNPACKED (PACKED) MEASUREMENTS IN MM

UNPACKED (PACKED) MEASUREMENTS IN MM				
	Width	Depth	Height	Weight in kg/lbs
GL2000-412	548 (700)	572 (750)	155 (260)	1635.2 (2044.4)
GL2000-416	668 (815)	572 (750)	155 (260)	1839.6 (2356.0)
GL2000-424	920 (1065)	572 (750)	155 (260)	2452.8 (2903.8)



GL3000-412



GI 2000-416



GI 2000-42A

RECALLED



The GL2000 complies with the European Directives for Electromagnetic Compatibility 89/336/EEC & 92/31/EEC.



A Division of
Harman International
Industries, Inc.

ALLEN
&
HEATH

ALLEN & HEATH
Kernick Industrial Estate,
Penryn, Cornwall TR10 9LU

Tel: (44) 01326 372070
Fax: (44) 01326 377097



INVESTMENT IN PEOPLE